

MYOCARDIAL ISCHEMIA AND INFARCTION

EARLY INDUCTION OF HYPOTHERMIA THERAPY PRIOR TO REVASCULARIZATION THERAPY IMPROVED NEUROLOGIC OUTCOMES IN CARDIAC ARREST CAUSED BY ACUTE CORONARY SYNDROME: J-PULSE-HYPO REGISTRY.

ACC Poster Contributions
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Authors: *Shinichi Shirai, Kenji Ando, Yoshimitsu Soga, Kyohei Yamaji, Tatsuki Doijiri, Masahiko Goya, Masashi Iwabuchi, Hiroyoshi Yokoi, Hideyuki Nosaka, Masakiyo Nobuyoshi, Naohiro Yonemoto, Hiroyuki Yokoyama, Hiroshi Nonogi, Ken Nagao, Kokura Memorial Hospital, Kitakyushu, Japan*

Background: Combination of mild hypothermia (MH) and percutaneous coronary intervention (PCI) was effective for the comatose survivors after cardiac arrest with acute coronary syndrome (ACS). Furthermore, early induction of MH had better neurologic outcomes than delayed MH. However, the benefits of early induction of MH prior to PCI were uncertain.

Methods: Three years (2005-2007) data were available for the 281 patients treated with MH in the multicenter registry in Japan. Of those 112 were diagnosed as ACS by emergency coronary angiography after ROSC and were subsequently treated with MH and PCI. Enrolled patients were divided into two groups: induction of MH prior to PCI (group MH, N=42) and PCI prior to MH (group PCI, N=70).

Results: There were no significant differences between the MH and PCI groups in baseline patient characteristics. Compared with PCI group, mean time from cardiac arrest to initiation of MH (52 ± 13 vs. 168 ± 9 min, $p < 0.0001$), and to target temperature (230 ± 38 vs. 422 ± 28 min, $p < 0.0001$) was shorter in MH group. Survival rates at 30 days were not statistically different between the two groups (83.3% in MH vs. 72.9% in PCI, $p = 0.2036$), however, favorable neurologic outcome (cerebral performance category 1 and 2) was significantly better in MH (64.3% vs. 44.3%, Odds ratio, 2.26, 95% CI, 1.03 to 4.98, $p = 0.0403$), respectively.

Conclusions: Early induction of MH prior to PCI improved the neurologic outcomes in cardiac arrest with ACS compared with delayed MH after PCI.

